Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 3.   (canceled)

4.   (currently amended)   ~~The method of claim 1,~~A method of detecting and correcting defective pixel data in raw data taken from an image sensor of a portable image capture device used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said method comprising:

receiving at an intelligent host a raw data signal for each pixel in said image from said portable image capture device;

computing for each pixel received from said image sensor a brightness value;

computing for each pixel received from said image sensor a local brightness value;

computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

comparing, for each pixel received from said image sensor, its local brightness deviation to a deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database,

wherein the computing steps, comparing step, recording steps, and correcting step are performed by the intelligent host,

wherein said correcting is achieved by replacing said defective pixel's brightness value by said defective pixel's local brightness value,

wherein said detecting includes video subsampling, wherein using video subsampling said detecting is carried out on video data frames at a rate of one of every n video frames, the n being no less than 32.

5.   (currently amended)   ~~The method of claim 1,~~A method of detecting and correcting defective pixel data in raw data taken from an image sensor of a portable image capture device used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said method comprising:

receiving at an intelligent host a raw data signal for each pixel in said image from said portable image capture device;

computing for each pixel received from said image sensor a brightness value;

computing for each pixel received from said image sensor a local brightness value;

computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

comparing, for each pixel received from said image sensor, its local brightness deviation to a deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database,

wherein the computing steps, comparing step, recording steps, and correcting step are performed by the intelligent host,

performing said detecting and correcting of said defective pixels dynamically and without any operator intervention, wherein said detecting includes video subsampling, wherein

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using video subsampling said detecting is carried out on video data frames at a rate of one of every n video frames, the n being no less than 32, and wherein said correcting is continuous on every video data frame.

6. - 11. (canceled)

12.   (previously presented) A method of detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said method comprising:

receiving a raw data signal for each pixel in said image;

computing for each pixel data received from said image sensor a brightness value;

computing for each pixel data received from said image sensor a local brightness value;

computing for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

setting a deviation threshold;

comparing for each pixel data received from said image sensor, its local brightness deviation to said deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database,

wherein said statistical database, by storing the location and frequency of defective pixels, develops over time trends which confirm which of said defective pixels warrant pixel correction, wherein said trends initially warrant pixel correction as a default and over time warrant pixel correction only if a particular defective pixel has an occurrence frequency of at least two out of four queries.

13.   (currently amended) ~~The method of claim 1,~~A method of detecting and correcting defective pixel data in raw data taken from an image sensor of a portable image capture device used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said method comprising:

receiving at an intelligent host a raw data signal for each pixel in said image from said portable image capture device;

computing for each pixel received from said image sensor a brightness value;

computing for each pixel received from said image sensor a local brightness value;

computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

comparing, for each pixel received from said image sensor, its local brightness deviation to a deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database,

wherein the computing steps, comparing step, recording steps, and correcting step are performed by the intelligent host,

wherein said detecting includes video subsampling, wherein using video subsampling said detecting is carried out on video data frames at a rate between one of every 128 video frames and 1 of every 32 video frames, and wherein said correcting is continuous on every video data frame.

14.   (currently amended) ~~The method of claim 1,~~A method of detecting and correcting defective pixel data in raw data taken from an image sensor of a portable image

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capture device used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said method comprising:

receiving at an intelligent host a raw data signal for each pixel in said image from said portable image capture device;

computing for each pixel received from said image sensor a brightness value;

computing for each pixel received from said image sensor a local brightness value;

computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

comparing, for each pixel received from said image sensor, its local brightness deviation to a deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database,

wherein the computing steps, comparing step, recording steps, and correcting step are performed by the intelligent host,

wherein said detecting includes video subsampling, wherein using video subsampling said detecting is carried out on video data frames at a rate of one of every n times X frames, where n is an integer and where X is not equal to either 50 or 60.

15.   (previously presented) A dynamic method requiring no user intervention for detecting and correcting defective pixel data in raw data taken from an image sensor which is part of one of (a) a digital video camera and (b) a digital still camera, used to obtain a digitized image which is sensed by a camera and transmitted over a bus to a PC, wherein said raw data includes normal pixel data and defective pixel data, said method comprising the steps of:

receiving raw data signals for each pixel from said image;

computing for each pixel signal received from said image sensor a brightness value;

computing for each pixel signal received from said image sensor a local brightness value, wherein said local brightness value is the arithmetic average of the brightness values of all pixels immediately neighboring and surrounding said pixel;

computing for each pixel signal received from said image sensor a local brightness deviation of said brightness value from said local brightness value, wherein said local brightness deviation is the absolute value of the difference between said pixel's brightness value and said pixel's local brightness value;

setting a deviation threshold;

comparing for each pixel signal received from said image sensor, its local brightness deviation to said deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

recording the location of said defective pixels in a statistical database;

recording the frequency of occurrence of said defective pixels in said statistical database; and

correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database, wherein said correcting is achieved by replacing said defective pixel's brightness value by said defective pixel's local brightness value, wherein said statistical database warrants pixel correction if a particular defective pixel has an occurrence frequency of at least two out of four queries; and

wherein said detecting is carried out on video data at a rate of one of (a) between one of every 128 video frames and 1 of every 32 video frames, and (b) one of every n times X frames, where n is an integer and X in not equal to either 50 or 60, and where said correcting is carried out continuously on every video data frame.

16. - 30 (canceled)

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31.   (currently amended) ~~The system of claim 16,~~A system for detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said system comprising:

a portable image capture device including an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

an intelligent host configured to receive said digital signals from said image sensor of said portable device, wherein said intelligent host includes a computer program product comprising:

a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a brightness value, said each pixel data received from said portable device by said intelligent host being a raw data signal;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness value;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

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computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database,

wherein said statistical database, by storing the location and frequency of defective pixels, develops over time trends which confirm which of said defective pixels are warranted for pixel correction, wherein said trends initially warrant pixel correction as a default and over time warrant pixel correction only if a particular defective pixel has an occurrence frequency of at least two out of four queries.

32.   (currently amended)   ~~The system of claim 16,~~A system for detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said system comprising:

a portable image capture device including an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

an intelligent host configured to receive said digital signals from said image sensor of said portable device, wherein said intelligent host includes a computer program product comprising:

a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a brightness value, said each pixel data received from said portable device by said intelligent host being a raw data signal;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness value;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database,

wherein said computer program causes said detecting to be carried out on video data frames at a rate between one of every 128 video frames and 1 of every 32 video frames, and said computer program causes said correcting to be carried out continuously on every video data frame.

33.   (currently amended) ~~The system of claim 16,~~A system for detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said system comprising:

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a portable image capture device including an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

an intelligent host configured to receive said digital signals from said image sensor of said portable device, wherein said intelligent host includes a computer program product comprising:

a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a brightness value, said each pixel data received from said portable device by said intelligent host being a raw data signal;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness value;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

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computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database,

wherein said computer program causes said detecting to be carried out on video data frames at a rate of one of every n times X frames, where n is an integer, and where X is not equal to either 50 or 60, and said computer program causes said correcting to be carried out continuously on every video data frame.

34.   (canceled)

35.   (currently amended) ~~The system of claim 16,~~ A system for detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said system comprising:

a portable image capture device including an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

an intelligent host configured to receive said digital signals from said image sensor of said portable device, wherein said intelligent host includes a computer program product comprising:

a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a brightness value, said each pixel data received from said portable device by said intelligent host being a raw data signal;

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computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness value;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database,

wherein execution of said computer program product does not increase processor load by more than between 1 percent to 80 percent.

36.   (currently amended) ~~The system of claim 16,~~ A system for detecting and correcting defective pixel data in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixel data and defective pixel data, said system comprising:

a portable image capture device including an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

an intelligent host configured to receive said digital signals from said image sensor of said portable device, wherein said intelligent host includes a computer program product comprising:

a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a brightness value, said each pixel data received from said portable device by said intelligent host being a raw data signal;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness value;

computer readable program code devices configured to cause a computer to compute for each pixel data received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database,

wherein execution of said computer program product does not reduce video processing by more than 1 frame per second.